

REMARKS

Reconsideration of this application as amended is respectfully requested.

In the Office Action, claims 1-32 were pending and rejected. In this response, claims 17-20 and 28-32 have been canceled without prejudice. Claims 1-16 and 21-27 have been amended. In addition, new claims 33-39 have been added. Thus, claims 1-16, 21-27, and 33-39 remain pending. No new matter has been added.

Claims 1, 4-9, 11, 21, 24-29, and 31-32 are rejected under 35 U.S.C. 112, second paragraph. In view of the foregoing amendments, it is respectfully submitted that the rejections have been overcome.

Claims 1-3 and 21-23 are rejected under U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,006,247 of Browning et al. ("Browning") in view of U.S. Patent No. 6,611,911 of O'Shea et al. ("O'Shea") and U.S. Patent No. 6,615,303 of Endo et al. ("Endo"). In view of the foregoing amendments, it is respectfully submitted that claims 1-16, 21-27, and 33-39 include limitations that are not disclosed by the cited references.

Specifically, independent claim 1 includes multiple processors sharing a memory and each processor running a specific operating system. The memory includes a common interrupt handling vector space shared by the multiple processors and a dedicated interrupt handling vector space for each processor respectively. When a processor receives an exception, the processor executes one or more instructions stored within the common interrupt handling vector space to determine based on the identification of the processor which of the dedicated interrupt handling vector space should be executed to handle the exception. Thereafter, the processor executes an interrupt service routine from the determined dedicated interrupt handling vector space associated with the processor. It is respectfully submitted that the above limitations are absent from the cited references.

Rather, although Browning is related to scheduling threads and handling exceptions within a multi-processor system (see Abstract of Browning), Browning still fails to disclose a multi-processor system in which each of the processor runs a specific operating system. In addition, Browning fails to disclose that a memory is shared by the multiple processors, where the memory includes a common interrupt handling vector space shared by multiple processors and a dedicated interrupt handling vector space for each of the processors. Similarly, O'Shea fails to disclose the above limitations.

Although, Endo is related to a computer system having multiple operating systems (see Abstract of Endo), the system of Endo appears to be a single processor system.

Furthermore, none of the Browning, O'Shea, and Endo is related to a network element for interfacing different networks, where the multi-processor system is part of a control card within the network element (e.g., claims 37-39).

There is no suggestion within Browning, O'Shea, and Endo to combine with each other. They are designed to solve significantly different problems and their approaches are significantly different. One with ordinary skill in the art would not arrive at the present invention as claimed based on the teachings of Browning, O'Shea, and Endo, because such a combination lacks motives and reasonable expectation of success.

Even if they were combined, such a combination still lacks the limitations set forth above. In order to render a claim obvious, each and every limitations of the claims must be taught by the cited references, individually or in combination. Therefore, for the reasons set forth above, it is respectfully submitted that independent claim 1 is patentable over Browning, O'Shea, and Endo.

Similarly, independent claims 12, 21, and 37 include limitations similar to those set forth above. Thus, for the reasons similar to those set forth above, it is respectfully submitted that claims 12, 21, and 37 are patentable over Browning, O'Shea, and Endo.

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Given that the rest of the claims depend from one of the above independent claims, at least for the reasons similar to those discussed above, it is respectfully submitted that the rest of the claims are patentable over the cited references.

Claims 4-5 and 24-25 are rejected under U.S.C. 103(a) as being unpatentable over Browning in view of O'Shea, Endo, and U.S. Patent No. 6,314,500 of Rose ("Rose") (e.g., 4 different references).

Claims 6-7, and 26-27 are rejected under U.S.C. 103(a) as being unpatentable over Browning in view of O'Shea, Endo, U.S. Patent No. 5,113,523 of Colley et al. ("Colley"), and U.S. Patent No. 6,539,440 of Stracovsky et al. ("Stracovsky") (e.g., 5 different references).

Claims 12-13 are rejected under U.S.C. 103(a) as being unpatentable over Browning in view of O'Shea, Endo, Stracovsky, and U.S. Patent No. 5,805,790 of Nota et al. ("Nota") (e.g., 5 different references).

Claims 8-10, 14-15, 17-19, 28-30, and 32 are rejected under U.S.C. 103(a) as being unpatentable over Browning in view of O'Shea, Endo, Stracovsky, Nota, and Rose (e.g., 6 different references).

Claims 11, 16, 20, and 31 are rejected under U.S.C. 103(a) as being unpatentable over Browning in view of O'Shea, Endo, Stracovsky, Nota, Rose, and Colley (e.g., 7 different references).

It is respectfully submitted that most of the above-identified claims either have been canceled or depend from one of the above independent claims 1, 12, 21, and 37. It is respectfully submitted that the above cited references also fail to disclose the limitations similar to those recited in the independent claims 1, 12, 21, and 37. As a result, the above dependent claims are also patentable over the cited references.

In addition, most of the above claims are rejected by a combination of 4-7 different

references. It is respectfully submitted that the Examiner has not establish motives,

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suggestions, and/or reasonable expectation of success for such a combination. It would be impermissible hindsight to use Applicant's own disclosure for such a combination.

Withdrawal of the rejections is respectfully requested.


In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

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